



November 29, 2016

Tom Moe USS Corporation P.O. Box 417 8771 Park Ridge Dr Mountain Iron, MN 55768

RE: Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

### Dear Tom Moe:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melisa M Woods

Massia Wirds

melisa.woods@pacelabs.com

**Project Manager** 

**Enclosures** 

cc: Cory Hertling Terri Sabetti, NTS







### **CERTIFICATIONS**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792

Alaska Certification UST-107 Alaska Certification UST-107 Alaska Certification #MN01084

Arizona Department of Health Certification #AZ0785

Minnesota Dept of Health Certification #: 027-137-445

**Duluth Minnesota Cerification ID's** 

4730 Oneota St., Duluth, MN 55807

Minnesota Dept of Health Certification #: 027-137-152

North Dakota Certification: # R-203

Wisconsin DNR Certification #: 998027470 WA Department of Ecology Lab ID# C1007

Nevada DNR #MN010842015-1

Oklahoma Department of Environmental Quality

Wisconsin DNR Certification #: 999446800

North Dakota Certification #: R-105



### **SAMPLE SUMMARY**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1279074001	SD 001 (Seep 020)	Water	11/16/16 10:45	11/16/16 13:20



### **SAMPLE ANALYTE COUNT**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
1279074001	SD 001 (Seep 020)	EPA 1664A TPH (1999)	BT1	1	PASI-DUL
		USGS I-3765	JJH	1	PASI-V



### **ANALYTICAL RESULTS**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

Date: 11/29/2016 08:04 AM

Sample: SD 001 (Seep 020)	Lab ID:	1279074001	Collecte	d: 11/16/16	10:45	Received: 11/16/16 13:20 Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual		
1664 SGT-HEM, TPH	Analytical	Method: EPA	1664A TPH	(1999)							
Total Petroleum Hydrocarbons	ND	mg/L	3.0	1.0	1		11/22/16 16:45				
USGS I-3765 TSS	Analytical	Method: USG	S I-3765								
Total Suspended Solids	2.0	mg/L	1.0	1.0	1		11/17/16 12:09				



### **QUALITY CONTROL DATA**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

QC Batch: 100638

QC Batch Method: EPA 1664A TPH (1999)

Associated Lab Samples: 1279074001 Analysis Method: EPA 1664A TPH (1999) Analysis Description:

1664 SGT-HEM, TPH

METHOD BLANK: 399830 Matrix: Water

Associated Lab Samples: 1279074001

> Blank Reporting MDL Parameter Units Result Limit Qualifiers Analyzed

Total Petroleum Hydrocarbons ND 3.0 1.0 11/22/16 11:22 mg/L

LABORATORY CONTROL SAMPLE: 399831

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Total Petroleum Hydrocarbons mg/L 20 20.3 102 64-132

MATRIX SPIKE SAMPLE: 399832

Date: 11/29/2016 08:04 AM

1279169001 MS Spike MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers <1.1 64-132 Total Petroleum Hydrocarbons 20.8 18.0 87 mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



### **QUALITY CONTROL DATA**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

QC Batch: 100383 Analysis Method: USGS I-3765

QC Batch Method: USGS I-3765 Analysis Description: USGS I-3765 Total Suspended Solids

Associated Lab Samples: 1279074001

METHOD BLANK: 398570 Matrix: Water

Associated Lab Samples: 1279074001

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Total Suspended Solids mg/L ND 1.0 1.0 11/17/16 12:09

LABORATORY CONTROL SAMPLE: 398571

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **Total Suspended Solids** mg/L 239 248 104 80-120

SAMPLE DUPLICATE: 398572

1279093001 Dup Max **RPD RPD** Parameter Units Result Result Qualifiers 360 4 10 Total Suspended Solids 347 mg/L

SAMPLE DUPLICATE: 398573

Date: 11/29/2016 08:04 AM

ParameterUnits1279109001 ResultDup ResultRPDMax RPDQualifiersTotal Suspended Solidsmg/L333320410

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



### **QUALIFIERS**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### **LABORATORIES**

PASI-DUL Pace Analytical Services - Duluth
PASI-V Pace Analytical Services - Virginia

### **BATCH QUALIFIERS**

Batch: 100638

Date: 11/29/2016 08:04 AM

[BF] Batch extracted by separatory funnel extraction.



### **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: USS MinnTac NPDES-TB

Pace Project No.: 1279074

Date: 11/29/2016 08:04 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1279074001	SD 001 (Seep 020)	EPA 1664A TPH (1999)	100638	•	
1279074001	SD 001 (Seep 020)	USGS I-3765	100383		

# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT Allerdon Control of the Annihilator of

		ADDITIONAL COMMENTS	2	10		7.	on and a second	w	SD 001 (Seep 020)	SAMPLE ID  One Character per box. (A-Z, 0-9 /, -)  Sample ids must be unique		Requested Due Date:	Phone: Fax:	Email:	<b>⋛</b>	Address: P O Rox 417	Section A Required Client Information:	
SAMPLER NA PRINT Na SIGNATU	Remember	RELINOUISHED BY AFFILIATION			. ,				34:0194711154:019431-11 IM	Whate water WW Whate Water WW Water Water WW W W W W W W W W W W W W W W W W W	es to left)		Project Name: NPDES-TB Wk3	Purchase Order #:	copy in	Report To: Torn Moe	Section B Required Project Information:	
SAMPLER NAME AND SIGNATURE  PRINT Name of SAMPLER:  SIGNATURE of SAMPLER:    Cont   Martin   Cont   Martin   Cont   Cont	11-1676 13:10	DATE							 34.0742	SAMPLE TEMP AT COLLECTION # OF CONTAINERS Unpreserved H2SO4 HNO3 HCI NaOH	į	Pace Profile #:	Pace Project Manager	Pace Quote:	Company Name:	Allention	Section C	
DATE Signed:	Car !	ACCEPTED BY/ AFFILIATION							×	Na2S2O3 Methanol Other Analyses Test TSS TRPH 1664	Y/N.		healther sike Characelahr com		CLIENT: USS CORP	PM: MMW Due	MU#:12/90/4	
TEMP in C  Received on Ice	113:2 26	DATE								Residual Chlorine (Y/N)	Requested Analysis Filtered (YIN)	10 in resort with the second s		26.5		Due Date: 12/02/16 -	0/4 -	
(Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)	イファ	SAMPLE CONDITIONS										SERUOTA CONTRACTOR OF THE SERVICE OF		ry Agency 🖃 💮		<u>-</u>	2	

## Pace Analytical "

### Document Name:

### Sample Condition Upon Receipt Form

Document No.: F-VM-C-001-Rev.09 Document Revised: 23Feb2015

Page 1 of 1

Issuing Authority: Pace Virginia, Minnesota Quality Office

Sample Condition Client Name: Upon Receipt	<_	F	roject #:	WO#:1279074
Courier: Fed Ex UPS Commercial Pace Tracking Number:	USPS Other:		ent 	1279074
Custody Seal on Cooler/Box Present?	Ν̈́ο	Seals Int	act?	Yes No Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble				·
hermometer Used: 140792808				Blue None Samples on ice, cooling process has beg
Cooler Temp Read °C: 2.5 Cooler Temenp should be above freezing to 6°C Correction	np Corrected *(	c: 12.0		Biological Tissue Frozen? Yes No Initials of Person Examining Contents: CL //-/6 7C
Chain of Custody Present?	Z Yes	□No	□N/A	1.
Chain of Custody Filled Out?	Yes	□No	□N/A	2.
Chain of Custody Relinquished?	✓Yes	□No	□N/A	3.
Sampler Name and Signature on COC?	Yes	□No	□N/A	4.
Samples Arrived within Hold Time?	Yes	∭No	□N/A	5.
Short Hold Time Analysis (<72 hr)?	□Yes	ØΝο	□N/A	6.
Rush Turn Around Time Requested?	∐Yes	√No	□N/A	7.
Sufficient Volume?	<b>⊘</b> Yes	□No	□N/A	8.
Correct Containers Used?	✓Yes	□No	□N/A !	9.
-Pace Containers Used?	Yes	□No	□N/A	
Containers Intact?	✓Yes	· · · · · · · · · · · · · · · · · · ·		10.
Filtered Volume Received for Dissolved Tests?	Yes			11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	Z Yes		_	12.
-Includes Date/Time/ID/Analysis Matrix:	Wi			
All containers needing acid/base preservation will be checked and documented in the pH logbook.	Yes	□No	ZIN/A I	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	∏Yes	□No	☑N/A 1	13.
Heads pace in VOA Vials ( >6mm)?	Yes	□No 4	N/A 1	14.
Trip Błank Present? Trip Blank Custody Seals Present?	☐Yes ☐Yes		()N/A 1 ()N/A	15.
Pace Trip Blank Lot # (if purchased):	<del></del>			
LIENT NOTIFICATION/RESOLUTION				Field Data Required? Yes No
Person Contacted:				te/Time:
Comments/Resolution:				
ECAL WAIVER ON FILE Y N	11/	TEMPE	RATURE	E WAIVER ON FILE Y N

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers) Page 11 of 13

## Intra-Regional Chain of Custody

Pace Analytical Page 12 of 13

Pace Analytical Virginia 315 Chestnut Street Virginia, MN 55792 Virginia, MN 55792 Phone (218) 742-1042  Report To: Melisa M Woods  Sample Collect Type Date/Time Lab*ID Matrix  1 SD 001 (Seep 020) PS 11/16/2016 10:45 1279074001 Water 2  1 SD 001 (Seep 020) PS 11/16/2016 10:45 1279074001 Water 2  1 CCC CP	or N   Samples Intact(Y)or
Pace Analytical Duluth 15 Chestnut Street 15 Chestnut Street 16 Chestnut Street 17 Chestnut Street 18 742-1042  Phone (218) 742-1042  Phone (218) 742-1042  Phone (218) 727-6380	Į į
Pace Analytical Virginia Pace Analytical Duluth 4730 Oneotta Street A730 Oneotta Street Duluth, MN 55807 Phone (218) 742-1042 Phone (218) 727-6380  Preserved Conta  Sample ID Preserved Conta  Sample Collect Date/Time Lab ID Matrix  Date/Time Received By  Date/Time Received By	
Pace Analytical Duluth 315 Chestnut Street Argunia, MN 55792 Phone (218) 742-1042 Phone (218) 742-1042  Sample ID Type SD 001 (Seep 020)  PS 11/16/2016 10:45 1279074001 Water  2	e
Pace Analytical Duluth 315 Chestnut Street 4730 Oneota Street Cliginia, MN 55792 Phone (218) 742-1042 Phone (218) 742-1042  Emi Sample ID  Type SD 001 (Seep 020) PS 11/16/2016 10:45 1279074001 Water  2	
Pace Analytical Duluth 13 Chestnut Street 4730 Oneota Street Cliginia, MN 55792 Phone (218) 742-1042  Phone (218) 742-1042  Phone (218) 727-6380  Sample ID  Sample Collect Date/Time Lab ID  Matrix  2  11/16/2016 10:45 1279074001  Water  2	
Pace Analytical Duluth 315 Chestnut Street 4730 Oneota Street Duluth, MN 55792 Phone (218) 742-1042 Phone (218) 742-1042  Sample ID Sample ID Sample Collect 11/16/2016 10:45 1279074001  PS 11/16/2016 10:45 1279074001  PS 11/16/2016 10:45 1279074001	
Pace Analytical Duluth 4730 Oneota Street Duluth, MN 55807 42 Phone (218) 727-6380    Type   Collect   Lab ID   Matrix   Grant   Collect   Collect	
Pace Analytical Duluth 4730 Oneota Street Duluth, MN 55807 Phone (218) 727-6380  Sample Collect LabiD Marrix	×
inia Pace Analytical Duluth 4730 Oneota Street Duluth, MN 55807 Phone (218) 727-6380	EPA
inia 42	1664A TPH (1999)
nia	
	Owner Received Date: 11/16/2016

<sup>\*\*\*</sup>In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical*
/

hold, incorrect preservative, out of temp, incorrect containers)

Document Name: Sample Condition Upon Receipt Form Document Revised: 22Jan2016

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Document No.: F-DUL-C-001-Rev.01

Issuing Authority: Pace Virginia, Minnesota Quality Office

mple Condition   Client Name:			Project #	
Upon Receipt IR-COC from	JH ->	Dur	44	
Courier: Fed Ex UPS Commercial Pace	USPS Other:	С		
acking Number:				
stody Seal on Cooler/Box Present?  \text{Yes}	Νο	Seals In	tact?	Yes No Optional: Proj. Due Date: Proj. Name:
cking Material: Bubble Wrap Subble Ba	gs 🔲 No	one [	]Other:	Temp Blank? ☐ Yes ☐ No
rmometer Used: S 800051	Type of I	ice:	Wet [	Blue None Samples on ice, cooling process has begu
ooler Temp Read °C: 3.5 Cooler Temp Con should be above freezing to 6°C Correction Fac				Biological Tissue Frozen? Yes No N. Initials of Person Examining Contents:  Comments:
Chain of Custody Present?	Yes	□No	□N/A	1.
Chain of Custody Filled Out?	Yes	□No	□N/A	2.
Chain of Custody Relinquished?	Yes	□No	□N/A	3.
sampler Name and Signature on COC?	Yes	□No	\_N/A	4.
amples Arrived within Hold Time?	Yes	□No	□n/A	5.
hort Hold Time Analysis (<72 hr)?	Yes	No	□N/A	6.
tush Turn Around Time Requested?	Yes	No	□n/a	7.
ufficient Volume?	Yes	□No	□N/A	8.
Correct Containers Used?	Yes	No	□n/a	9.
-Pace Containers Used?	Yes	□No	□N/A	
Containers Intact?	Yes	□No	□n/a	10.
iltered Volume Received for Dissolved Tests?	□Yes	No	DN/A	11. Note if sediment is visible in the dissolved containers.
ample Labels Match COC?	Yes	No	N/A	12.
-Includes Date/Time/ID/Analysis Matrix: wT	~			
All containers needing acid/base preservation will be checked and documented in the pH logbook.	Yes	□No	N/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	Yes	No	<b>∏</b> N/A	13.
Headspace in VOA Vials ( >6mm)?	Yes	□No	□N/A	14.
Trip Blank Present?	Yes	No	[]N/A	15.
Trip Blank Custody Seals Present?	□Yes	□No	<b>□</b> N/A	
Pace Trip Blank Lot # (if purchased):				
IENT NOTIFICATION/RESOLUTION				Field Data Required? Yes No
Person Contacted:				Date/Time:
Comments/Resolution:				
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			<del></del>	
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Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of